

value, for, as we pointed out in our criticism of the first part, it is not altogether reliable as regards completeness. In the two parts before us we find numerous omissions; indeed we do not notice any improvement in this respect. A number of the references are hopelessly contracted, so that it becomes a matter of guesswork which work may be referred to. As examples we may cite "Grass. Ind. Test.," "Pet. Moll. T.," "Mrts. Beitr.," "Tapp. C. p. 287," "Mrts. Asia C. S3," "Dkr. Afric. M.," &c. The same remarkable contractions of authors' names appear in many instances. It will doubtless puzzle many conchologists to recognize the following writers:—Dub., Hilb., Budd., Lub., Watlb., Crras., Euth., Leo., Drgt., &c. We also notice in a few cases names given as authors' which are altogether incorrect, *e. g.* Yoldi and Valdiv., the former the name of the owner of a celebrated collection, the latter a contraction for Valdivia, a place in Chile. Sometimes names are variously abbreviated: for example, *De Morgan* appears as de Mon., d'Morg., Morg., and d. Morg.; *Brazier* is rendered Brac., Bruz., and Brazier; and *Craven* is written Crav., Craw., Crawen, and Craven.

The localities are frequently as enigmatical as the authors' names. It would be a matter of some difficulty to recognize the position of such places as these:—Jalap., Mach., Rum. Hill., Solothr., Nag., I. Aitut., Toni B., Tillow., Bet. gia., Tuk. Ber., &c.

In conclusion, we do not deny that the work possesses a certain usefulness; but this is certainly marred in the points we have indicated.

*Foraminifera and Radiolaria from the Cretaceous of Manitoba.* By JOSEPH B. TYRRELL, M.A., B.Sc., &c., of the Geological Survey of Canada. (Trans. Roy. Soc. of Canada, 1890.)

MR. TYRRELL gives a succinct account of the researches and surveys whereby the natural sections in Manitoba are known to expose the several groups of Cretaceous strata, with their estimated thicknesses, as follow:—

	feet.
Laramie .....	?
Pierre { Odanah.....	500
{ Millwood .....	500
Niobrara.....	200-540
Benton .....	130
Dakota .....	50-150

Besides visible sections of outcrops, the wells and deep borings have been utilized in obtaining a knowledge of the strata underlying the wide plains of the Canadian North-West. By the careful comparison of the successive beds met with in these borings, and especially by a microscopic examination of their respective materials, they can be identified, and the sections can be correlated—their relative characters and thicknesses can be noted—and not

only their geological history elucidated, but their height above the sea-level and the depth at which their water-bearing zones can be reached are ascertained.

Much careful labour has been given to this research, and a Radiolarian zone has been met with in the Millwood series at the Bell River in Porcupine Mountain, and the North-pine Creek in Duck Mountain. Dr. D. Rust, of Hanover, will describe and figure these microzoa for the Geological Survey of Canada. Abundant Foraminifera occur in the Niobrara division; upwards of twenty species are enumerated, some of which have been named for Mr. Tyrrell by Mr. C. D. Sherborn, F.G.S., of London. There are also coccoliths and rhabdoliths. Prisms of *Inoceramus* in some cases compose the rock, and particles of oyster-shell and fragments of teeth and scales of fishes are also present. The Foraminiferal Niobrara limestone is underlain by the dark grey Benton shales, containing a large amount of bituminous matter, with flakes and crystalline masses of selenite. The sands and clays of the Dakota formation, or basal sandstone of the Cretaceous series throughout the district, lie unconformably on the eroded surface of Palaeozoic limestones and shales.

## MISCELLANEOUS.

*A Test Case for the Law of Priority.* By F. JEFFREY BELL.

It is now recognized by, I think, every student of Echinoderms that the tenth edition of Linnaeus's 'Systema Naturæ' is that which is to be cited. Those who, like myself, were content to accept the instructions of the British Association Code, were forced to adopt the more reasonable and general rule that the tenth edition, and not the twelfth, should be cited by the publication of Prof. Lovén's essay on the Echinoidea described by Linnaeus.

I make, then, my major premiss, "the tenth edition of Linnaeus is to be quoted."

My minor cannot be subject to discussion; it is the mere statement of a fact:—All the species placed by Linnaeus in the genus *Holothuria* in the work cited are pelagic Hydroids or Tunicates.

The conclusion is obvious: the generic name *Holothuria* must not be applied to any "Holothurian," which, as an eminent geometer remarked, is absurd.

This is not the first occasion on which strict adherence to logic has landed the dialectician in, to say the least, an untenable position. How shall one escape?

It will probably be told me that if I would only obey rules laid down for me by my betters I should not have got into this scrape.

Let us see. In the twelfth edition (1767) Linnaeus includes *frondosa*, *physalis*, and *thalia*, as well as others, in the genus—that